

## Complete Summary

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### GUIDELINE TITLE

Palliative treatment of cancer.

### BIBLIOGRAPHIC SOURCE(S)

Finnish Medical Society Duodecim. Palliative treatment of cancer. In: EBM Guidelines. Evidence-Based Medicine [CD-ROM]. Helsinki, Finland: Duodecim Medical Publications Ltd.; 2003 May 30 [Various].

### GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Finnish Medical Society Duodecim. Palliative treatment of cancer. Helsinki, Finland: Duodecim Medical Publications Ltd.; 2001 Dec 27. Various p.

## COMPLETE SUMMARY CONTENT

SCOPE  
 METHODOLOGY - including Rating Scheme and Cost Analysis  
 RECOMMENDATIONS  
 EVIDENCE SUPPORTING THE RECOMMENDATIONS  
 BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS  
 IMPLEMENTATION OF THE GUIDELINE  
 INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT  
 CATEGORIES  
 IDENTIFYING INFORMATION AND AVAILABILITY

## SCOPE

### DISEASE/CONDITION(S)

- Cancer
- Symptoms associated with cancer or cancer care, including pain, cough, dyspnoea, dry mouth, stomatitis, anorexia, nausea, vomiting, constipation, diarrhoea, intestinal obstruction, hiccup, ulcerations caused by skin metastases, and pruritus

### GUIDELINE CATEGORY

Evaluation  
 Management  
 Treatment

## CLINICAL SPECIALTY

Family Practice  
Internal Medicine  
Oncology

## INTENDED USERS

Health Care Providers  
Physicians

## GUIDELINE OBJECTIVE(S)

Evidence-Based Medicine Guidelines collect, summarize, and update the core clinical knowledge essential in general practice. The guidelines also describe the scientific evidence underlying the given recommendations.

## TARGET POPULATION

Patients with cancer who require palliative care

## INTERVENTIONS AND PRACTICES CONSIDERED

1. Identification of specific cause(s) of symptoms
2. Variable pharmacologic and non-pharmacologic palliative care measures depending on the identified causes of the symptoms
3. Palliative radiotherapy

Note: The guideline developers considered nutritional support for patients with cancer; however, nutritional recommendations were not offered.

## MAJOR OUTCOMES CONSIDERED

Efficacy of palliative care

## METHODOLOGY

### METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)  
Hand-searches of Published Literature (Secondary Sources)  
Searches of Electronic Databases

### DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The evidence reviewed was collected from the Cochrane database of systematic reviews and the Database of Abstracts of Reviews of Effectiveness (DARE). In addition, the Cochrane Library and medical journals were searched specifically for original publications.

## NUMBER OF SOURCE DOCUMENTS

Not stated

## METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

## RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

A: Strong research-based evidence. Multiple relevant, high-quality scientific studies with homogeneous results.

B: Moderate research-based evidence. At least one relevant, high-quality study or multiple adequate studies.

C: Limited research-based evidence. At least one adequate scientific study.

D: No research-based evidence. Expert panel evaluation of other information.

## METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

## DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not applicable

## METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

## RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

## COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

## METHOD OF GUIDELINE VALIDATION

Peer Review

## DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

The levels of evidence [A-D] supporting the recommendations are defined at the end of the "Major Recommendations" field.

#### Aims

- The duration of palliative treatment for cancer ranges from months and years to a few days. Treatment of the cancer with antineoplastic drugs or radiotherapy may alleviate the symptoms of a patient in a better condition efficiently, while care and alleviation of pain (see the Finnish Medical Society Duodecim guideline "Pharmacological Treatment of Cancer Pain") are central in the treatment of a dying patient. At each stage of the disease the aim is to find therapies with beneficial effects outweighing the adverse effects. The treatment alternatives given in this article should be considered from this perspective.
- Discuss treatment alternatives with the patient. Explain the probable aetiology of the symptoms, engage family members in the treatment, and consult with specialists.

#### Respiratory Symptoms

##### Cough: Causes and Treatment Alternatives

- Heart failure, asthma, chronic obstructive pulmonary disease (COPD): treatment according to the disease
- Infection: antibiotic, antipyretic
- Lung metastases, tumour-induced irritation of the pharynx and the airways
  - Prednisolone 40 to 60 mg x 1 or dexamethasone 6 to 9 mg x 1 with dose tapering according to response
  - Antitussive medication, see below
  - Radiotherapy
- Pleural effusion
  - Pleural aspiration (not more than 1500 mL at a time), drainage +/- sclerotherapy
  - Prednisolone 40 to 60 mg x 1 or dexamethasone 6 to 9 mg x 1 with dose tapering according to response
  - Antitussive medication, see below
- Haemoptysis
  - Tranexamic acid 1000 to 1500 mg x 3
  - Prednisone 40 to 60 mg x 1 or dexamethasone 6 to 9 mg x 1 with dose tapering according to response
  - Radiotherapy
- Drug- (bleomycin, methotrexate) or radiotherapy-induced pneumonitis. Radiation pneumonitis may appear (1-) 3 months after radiation of the lungs. It is seen as an opacity with the shape of the irradiation field on the chest radiograph. Fever may be present and CRP may be elevated.

- Rest
- Prednisone 40 to 60 mg × 1 or dexamethasone 6 to 9 mg × 1 with dose tapering according to response
- Antitussives (see below), antibiotics if infection co-exists
- If you suspect drug-induced pneumonitis, contact the centre giving the cytostatic therapy.
- Pulmonary aspiration (pharyngeal palsy, obstructing tumour)
  - Pharyngeal palsy: eating sitting up with chin pointed downwards
  - Fluid is made thicker (e.g., Thick and Easy)
  - Radiation of the obstructive tumour, laser therapy, or bypassing using a stent
  - Gastrostoma
- Productive cough/mucus secretion
  - Infection: antibiotics
  - Pain prevents the patient from coughing productively; coughing is difficult when the patient is lying down.
    - Management of pain
    - Position therapy
    - Patting
    - Breathing into a bottle
  - Humidification of the air
  - Mucolytics (e.g., bromhexine 8 mg × 3)
  - If the patient is too weak to cough
    - Antitussives, see below
    - Aspiration of mucus from the airways is seldom necessary and it is unpleasant for a conscious patient.
    - Anticholinergics (e.g., glycopyrrolate 0.2 mg × 1-6 continuous subcutaneous [s.c.] or 0.6-1.2 mg/daily as continuous s.c./intravenous [i.v.] infusion) decrease mucus production in the airways but also dry the mouth.
- Antitussive medication
  - Opioids, e.g.,
    - codeine 30 to 60 mg × 3 to 4
    - paracetamol 500 mg + codeine 30 mg 1 to 2 doses × 3 to 4
    - ibuprofen 200 mg + codeine 30 mg 1 to 2 doses × 3 to 4
    - morphine solution with a starting dose of 12 to 20 mg × 1 to 6
    - long-acting morphine with a starting dose of 10 to 30 mg × 2

## Dyspnoea; Causes and Treatment Alternatives

Identify treatable, reversible causes, and in all cases alleviate symptoms.

- Heart failure, asthma, COPD: treatment depends on the disease
- Pulmonary embolism: anticoagulant therapy
- Pneumonia: antibiotics, antipyretics
- Anaemia: red cell transfusion; in some cases erythropoietin may be indicated
- Fever: antipyretics
- Partial pulmectomy, lung fibrosis: symptomatic therapy
- Drug- (bleomycin, methotrexate) or radiotherapy-induced pneumonitis. Radiation pneumonitis may appear (1-) 3 months after irradiation of the lungs. It is seen as an opacity with the shape of the irradiation field on the chest radiograph. Fever may be present and CRP may be elevated.

- Rest
- Prednisone 40 to 60 mg × 1 or dexamethasone 6 to 9 mg × 1 with dose tapering according to response
- Antitussives (see below), antibiotics if infection co-exists.
- If you suspect drug-induced pneumonitis, contact the centre giving the cytostatic therapy.
- Tumour-induced causes of dyspnoea in the neck and thorax
  - Compression of the trachea, bronchi, or the vena cava superior, atelectasis, lung metastases, lymphangitis carcinomatosa:
    - dexamethasone 3 to 10 mg × 1 to 3 with dose tapering according to response
    - radiotherapy
    - consider laser therapy or a stent
  - Pleural effusion
    - Pleural aspiration (not more than 1500 mL at a time), drainage +/- sclerotherapy
    - Prednisone 40 to 60 mg × 1 or dexamethasone 6 to 9 mg × 1 with dose tapering according to response
  - Pericardial tamponade
    - Aspiration
- Ascites, enlarged liver, or large abdominal tumour:
  - Ascites puncture, diuretics
  - Elevation of the upper body, half-sitting position
  - Prednisone 40 to 60 mg × 1 or dexamethasone 6 to 9 mg × 1 with dose tapering according to response
- Anxiety, hyperventilation
  - Calming down, safe environment, a benzodiazepine
- Non-pharmacological management of dyspnoea
  - A patient with dyspnoea is often very restless. Anxiety may aggravate dyspnoea. Explain to the patient the course of the disease and teach how to act in acute attacks.
  - Consider whether you should discuss the fear of suffocation. Patients with a lung tumour or metastases may fear suffocation also when there is no risk of severe dyspnoea: "In these situations, some of my patients have been afraid of suffocating..." Suffocation caused by cancer is very rare (tracheal obstruction or bleeding caused by a tumour in the head and neck region).
  - If dyspnoea continues to be severe despite treatment, you can agree with the patient and his/her family to keep the level of consciousness so low that the patient need not suffer from the feeling of suffocation; instructions on medication are given below.
  - Plan of action for attacks of dyspnoea
    - Pre-planned drugs readily available (e.g., in the pocket, on the night table)
    - (Half)-sitting resting position, calm breathing, window open
    - How to call for help: wrist band alarm, bell, phone (telephone number must be written down clearly and readily at hand)
  - Physiotherapy, relaxation exercises
  - Physical strain depending on functional capacity
  - Oxygen, if hypoxaemia is obvious and correction is beneficial
- Pharmacotherapy for dyspnoea
  - If obstruction is associated (see also section on the treatment of asthma)

- Inhaled bronchodilator
  - Theophylline mixture may bring subjective relief
- Prednisone 20 to 80 mg × 1 or dexamethasone 3 to 10 mg × 1 to 3 with dose tapering according to response
- Opioids are effective in the treatment of dyspnoea (Jennings et al., 2002) [A].
  - Starting dose with a morphine solution 12 to 20 mg × 1 to 6
  - Starting dose with a long-acting morphine 10 to 30 mg × 2
  - Dose is increased by 20 to 30% (up to 50%)
- Benzodiazepines
  - Diazepam (5-)10 to 20 mg at night, 5 to 10 mg × 1 to 3 orally (p.o)/per rectum (p.r.)
  - Lorazepam 0.5 to 2 mg × 1 to 3 p.o., intramuscular (i.m.)/i.v., or 2 to 4 mg/day s.c./i.v. infusion
- If necessary, start antidepressive medication.
- Give the patient (written) instructions on medication for acute attacks of dyspnoea: the patient should always have 1-2 doses of morphine solution and 1 to 2 doses of benzodiazepine available.
- If sedation is required
  - Continue the symptomatic medication
  - Titrate effective morphine medication
  - Add a benzodiazepine (e.g., diazepam [2.5]-5-10 mg p.o./p.r. i.v. once every hour until the patient is calm); plan continuous medication on the basis of the dose needed to calm the patient.
  - Haloperidol often enhances sedation (e.g., haloperidol 2.5 mg i.m. once every hour until the patient is calm); plan continuous medication on the basis of the dose needed to calm the patient.
- Agree upon emergency medication if an emergency (e.g., tracheal bleeding/compression) is to be expected:
  - The patient must not be left alone; everyone must stay calm
  - For example, diazepam 5 to 20 mg i.v. or 10 to 20 mg p.r. +/- morphine 10 to 20 mg i.v./i.m. (the dose is determined by the patient's earlier medication)
  - If necessary, repeat the dose until the patient becomes/is unconscious.

### Dry Mouth and Stomatitis

See The Finnish Medical Society Duodecim guideline "Dryness of the Mouth."

#### Dentist

Helps with oral hygiene and with dental repairs. Gives instructions on the use of fluorine.

#### Oral Hygiene

- Soft toothbrush
- No strong mouth rinses or toothpastes
- Well-fitted prostheses that are cleaned twice daily and not worn at nights
- Frequent mouth rinsing and gargling
  - Water

- Saline solution (1 tsp of salt in 2 dL of water)
- Salt-sodium bicarbonate solution (1 tsp of salt + 1 tsp of sodium bicarbonate in 2 dL of water)
- Chlorhexidine diluted

## Eating

- Lukewarm, mildly spiced soft foods
- Nothing very cold or hot

## Treatment of Candida and Herpes Infections

- Candida is the most common cause of infection.
- Local therapy:
  - Miconazole gel 2% 2.5 mL x 4
  - Natamycin drops 25 mg/mL x 4
  - Nystatin drops 100,000 IU/mL 1 mL x 4
  - Amphotericin B tablet 1 x 4 (difficult if dry mouth)
- In severe candida stomatitis give fluconazole systemically.
- Herpes infection:
  - Valaciclovir 500 mg x 2 for 5 days

## Treatment of Pain

- Local therapy:
  - Lidocaine mouth rinse 5 mg/mL 15 mL for gargling + 15 mL swallowed x 1 to 8 (note allergy and danger of aspiration)
  - Lidocaine mixture (20 mg/mL) 5 to 10 mL first gargled and then swallowed slowly x 1 to 6 (note allergy and danger of aspiration)
  - Sucralfate first gargled and then swallowed 200 mg/mL x 4 to 6 (if this induces vomiting, the patient should not swallow the dose) may reduce the need for analgesics.
  - Systemic pain medication see the Finnish Medical Society Duodecim guideline "Pharmacological Treatment of Cancer Pain."

## Anorexia

- This section deals with causes of anorexia, some of which can be treated. It is quite common for a patient approaching the end of life to lose interest in eating and drinking. Knowing that the loss of appetite is a common problem in the course of cancer may help the patient and family members to give up a compulsory search for suitable foods.
- There is no clear evidence of the correlation of fluid status and the presence of thirst (Viola, Wells, & Peterson, 1997; DARE-985105, 2000) [C].
- Causes of anorexia
  - Medication, such as antineoplastic agents, interferon, analgesics
  - Oral Candida infection (common); sore or dry mouth; see article on the treatment of a stomatitis and dry mouth
  - Nausea and vomiting, see section on the treatment of nausea.
  - Early feeling of satiety, which may be caused by
    - Constipation (see section below on management)



- Abdominal tumour or large liver (corticosteroids may reduce swelling: prednisone 20 to 40 mg x 1 or dexamethasone 3 to 6 mg x 1)
  - Ascites (puncture, diuretics)
  - Half-sitting position, small portions, metoclopramide 10 to 20 mg x 3 to 4 given 20 minutes before a meal and at night
- Metabolic causes (e.g., hypercalcaemia, uraemia), see relevant sections in the Finnish Medical Society Duodecim guideline "Hypercalcaemia and Hyperparathyroidism and Treatment of Chronic Renal Failure"
- Pulmonary aspiration (pharyngeal palsy, obstructing tumour)
  - Pharyngeal palsy: eating sitting up with chin pointed downwards
  - Make fluid thicker (e.g., Thick and Easy)
  - Radiation of the obstructive tumour, laser therapy or bypassing using a stent
  - Gastrostoma
- Pain (pain medication)
- Depression: comforting, medication
- Unpleasant surroundings for eating
- Cold food (e.g., ice cream)
- Small portions on small plates. Pleasantly set meals at short intervals when the patient wishes. A smell-free place for eating.
- Shared meals by the table dressed up instead of eating in the bed wearing nightwear
- An aperitif may improve the patient's appetite; any alcoholic drink is suitable (NB antabus interaction with metrodinazole)
  - A recipe for eggnog: 1 raw egg, 0.5 to 1 dL of cream, 2 teaspoonfuls of sugar, 1 tablespoonful of orange juice, 10 to 15 mL of cognac
- Medication may improve the patient's appetite
  - Corticosteroids: dexamethasone 3 to 6 mg x 1 or prednisolone 10 to 20 mg x 1.
  - Megestrol acetate 160 mg x 2 up to 800 mg/day
  - Medroxyprogesterone acetate 100 mg x 3 to 500 mg x 2

### Nausea and Vomiting: Causes and Treatment Alternatives

- Chemotherapy
  - Acute chemotherapy-induced emesis: antiemetic medication is given at the hospital
  - Delayed chemotherapy-induced emesis:
    - Metoclopramide 10 to 30 mg x 3 to 4 p.o., p.r. +/- dexamethasone 3 to 6 mg x 1 to 2 for 2 to 4 days
  - Other drugs, for example, opioids (nausea caused by opioids seldom lasts more than a week), digoxin (concentration), non-steroidal anti-inflammatory drugs (NSAIDs)
    - Stop unnecessary drugs, change the drug, and check dosage.
  - Irradiation of the abdomen or large pelvic field
    - Metoclopramide 10 to 20 mg x 3 to 4 p.o., p.r.
- Constipation is a common and curable cause of nausea; see below and separate Finnish Medical Society Duodecim guideline "Hypercalcaemia and Hyperparathyroidism."

- Increased intracranial pressure: brain tumour, brain metastases:
  - Dexamethasone 3 to 10 mg × 1 to 3 with dose tapering according to response, radiotherapy, surgery
- Enlarged liver, ascites: steroid, ascites puncture, diuretics.
- Uraemia, liver failure: symptomatic treatment.
- Oesophagitis, gastritis (see the Finnish Medical Society Duodecim guideline "Treatment of Dyspepsia, Peptic Ulcer and Helicobacter Infection"): remember the possibility of candida stomatitis and oesophagitis.
- Anxiety, fear, depression
  - Appropriate treatment of nausea, psychological support, and anxiolytic and/or antidepressive medication, when necessary
- Cough resulting in vomiting: see section on treatment of cough above.
- Symptomatic medication at suggestive doses
  - Metoclopramide 10 mg 1 to 2 × 3 to 4 p.o./p.r./i.v./i.m., 20 to 50 mg/day as a continuous s.c./i.v. infusion
  - Haloperidol 1 to 2 mg at night, 0.5 to 2 mg × 1 to 3 p.o., 2.5 to 5 mg × 1 to 3 i.m., 5 to 10 mg daily s.c./i.v. infusion
  - Lorazepam 0.5 to 2 mg × 1 to 3/p.o./i.m./i.v., 2 to 4 mg/day as a s.c./i.v. infusion
  - Dexamethasone 3 to 9 mg × 1 p.o., 5 to 10 mg × 1 to 2 i.m./i.v., prednisone 20 to 60 mg × 1
  - Prochlorperazine 5 to 20 mg × 1 to 3 p.o., 25 mg × 1 to 3 p.r.
  - Levomepromazine 2.5 to 12.5 mg at night
  - Cyclizine 25 to 50 mg × 1 to 3, hydroxyzine 20 mg at night
  - Above drugs in combinations

### Constipation

- Constipation is a very common symptom in a patient with advanced cancer. It is associated with the disease itself, changes in diet, reduction of exercise, drugs, lack of privacy in the hospital, or a combination of these factors. Rule out intestinal obstruction (vomiting, cramp-like pain, visible peristaltic activity, swelling of the stomach); see below section on intestinal obstruction and acute abdomen.
- In the beginning of treatment, auscultate abdominal sounds, palpate the stomach, and confirm/exclude blockage of the rectum by touch per rectum.
- Causes:
  - Cancer: obstruction, peritoneal carcinosis, ascites, spinal cord compression
  - Drugs: opioids, anticholinergics (e.g., neuroleptics, antidepressants), vinka-alkaloids, 5-HT<sub>3</sub> antagonists
  - Changes in nutrition, dehydration: recommend ample amounts of fluids, juices, and, if possible, fibre
  - Reduction in physical activity: encourage physical activity (and treat pain that prevents it)
  - Painful anal fissure, irritated haemorrhoids: treat
  - Hypercalcaemia
  - Lack of privacy in the hospital: ensure sufficient privacy
- Constipation is a private complaint: ask actively about it and inform the patient.
- Start prophylactic medication for constipation when opioids are initiated.

- Medication is given preferably orally. Suppositories are used when necessary or bowel movement is induced by giving an enema.
  - Bulk laxatives require ample amounts of fluids and are not suitable for a patient in poor condition.
  - Osmotic laxatives (e.g., lactulose 20-30 mL × 1-2 [-4]) are used alone or with stimulant laxatives
  - Stimulant laxatives (senna, sodium picosulphate, docusate, bisacodyl) alone or combined with osmotic laxatives
  - Prokinetic agents: metoclopramide 10 to 20 mg × 3 to 4

### Diarrhoea

- Treatment-related causes:
  - Diarrhoea in a cancer patient is most often caused by cytotoxic agents (e.g., 5-fluorouracil, irinotecan, topotecan).
  - Irradiation of the pelvic region
  - Postoperative causes: resection of the intestine or pancreas, blind-loop syndrome
  - Antibiotics: Clostridium difficile
- Cancer-related causes:
  - Carcinoid syndrome: causative and symptomatic treatment, including octreotide.
  - Pancreas cancer: osmotic diarrhoea, pancreatic enzyme substitution, consultation with a therapeutic dietitian
  - Constipation may cause "overflow" diarrhoea.
  - Some nutrients may aggravate diarrhoea: spicy, greasy, fibre-rich foods, dairy products
- Consultation with a therapeutic dietitian may be useful, particularly after surgery and in pancreatic cancer.
- Parenteral fluid therapy is indicated when the overall situation is such that benefit is to be expected.
- Treat symptomatically by giving
  - Charcoal tablets
  - Loperamide 4 mg starting dose, and 2 mg after each diarrhoeic voiding up to 16 mg/day
  - Morphine solution 12 to 20 mg × 1 to 6 or oxycodone solution 10 to 15 mg 1 × 6
  - Long-acting morphine 10 to 30 mg × 2 or oxycodone 20 mg × 2
  - Morphine or oxycodone; starting doses 4 to 10 mg × 4 to 6 s.c.
  - Some centres have used octreotide in treatment-resistant cases, 25 to 100 micrograms × 1 to 3 s.c., also for other conditions than the carcinoid syndrome.

### Intestinal Obstruction

- If the patient's condition allows surgical intervention, consult a surgeon.
- Inoperable obstruction:
  - Discontinuation of food intake, intravenous hydration, and nasogastric suction are indicated only in preparation for an operation.
  - When the obstruction is located proximally in the gastrointestinal tract, vomiting occurs rapidly after food or drug ingestion; in a distal obstruction, oral medication may be successful.

- The need for parenteral fluid therapy or nutrition must be considered individually. When the intestine is permanently obstructed, the cancer is usually so advanced that parenteral therapy is not beneficial.
- Nausea, vomiting, colic pain
  - Haloperidol 5 to 15 mg daily s.c./i.v. infusion or 1 to 2 mg  $\times$  3 p.o.
  - Morphine 30 to 60 mg/day s.c. /i.v. infusion, 10 to 30 mg  $\times$  2 p.o., starting doses.
  - Glycopyrrolate 0.6 to 1.2 mg/day continuous s.c./i.v. infusion, 0.2 mg  $\times$  1 to 6 s.c.
  - Dexamethasone 6 to 20 mg  $\times$  1 may reduce swelling around the tumour
  - Chlorpromazine 10 to 25 mg  $\times$  3 daily p.o.; may cause sedation
  - Some centres have used octreotide in treatment resistant cases at 25 to 100 micrograms  $\times$  1 to 3 s.c. (Feuer & Broadley, 2002) [C].
- If your patient vomits continuously despite medication, discuss the pros and cons of the nasogastric tube with him/her.

### Hiccup

- Causes:
  - Irritation of the phrenic nerve or the diaphragm (tumour, distention of the ventricle, enlarged liver, diaphragmatic hernia, ascites, ulcer, gastritis, oesophagitis)
  - Brain tumour
  - Uraemia
- Non-pharmacological treatments (e.g., the patient should try sitting up, breathing into a paper bag, drinking two glasses of water, or swallowing two tsps of sugar)
- Metoclopramide 10 to 20 mg  $\times$  3 to 4 daily p.o./p.r. or parenterally.
- Haloperidol 0.5 to 2 mg  $\times$  1 to 3 daily p.o., or 2.5 to 5 mg i.m.  $\times$  1 to 3, or 5 to 10 mg/day s.c./i.v. infusion
- Chlorpromazine 25 to 50 mg  $\times$  1 to 3 daily p.o (may cause sedation).
- Baclofen 5 to 20 mg  $\times$  2 to 3 p.o.
- If the cause is a brain tumour, antiepileptic medication may be effective.

### Ulcerations Caused by Skin Metastases or Ulcerating Tumours

#### Treatment

- Radiotherapy
- If the skin is exudative, shower  $\times$  2-often, cover with a moist dressing (e.g., physiological saline bandages).
- Foul smell, infection
  - Showering and antiseptic bandage
  - Absorbing activated charcoal bandages reduce smell.
  - Consider systemic antibiotics that are effective against anaerobes.
  - Bad smell in the room can be reduced, for example, by lemon slices or a scented (tar) candle.
- Treatment-resistant focal ulcer: consult a (plastic) surgeon.

## Itching: Causes and Treatment Alternatives

- Skin diseases: treatment of the basic disease
- Allergic reactions: stopping or changing medication, treatment of allergic reaction
- Morphine is a rare but possible cause of itching: try changing to oxycodone or fentanyl.
- Uraemia: (symptomatic) treatment of uraemia
- Itching caused by skin metastases; radiation therapy; see section above for treatment of skin ulcers
- Polycythaemia vera: causative treatment, low-dose acetylsalicylic acid (ASA), note bleeding complications
- Cancer-induced cholestasis
  - In extrahepatic cholestasis, bile acids can be drained; in some cases radiotherapy may be an option.
  - Prednisone 20 to 80 mg × 1 or dexamethasone 3 to 10 mg × 1 to 2 with dose tapering according to response
  - Good skin care, see below
  - Symptomatic medication, with sedation as the main benefit. In some cases night-time dosing is sufficient.
    - Antihistamines (especially sedative ones) such as hydroxyzine 10 to 25 mg × 1 to 3
    - Haloperidol 0.5 to 2 mg × 1 to 3 p.o., 2.5 to 5 mg × 1 to 3, or 5 to 10 mg/day s.c./i.v. infusion
    - Benzodiazepines
      - Lorazepam 0.5 to 2 mg × 1 to 3, 2 to 4 mg/day s.c./i.v. infusion
      - Diazepam 5 to 10 mg p.o./p.r. at night, 5 to 10 mg × 1 to 3 p.o./p.r., 5 to 10 mg/day i.v. infusion
    - Chlorpromazine 25 to 50 mg × 1 to 3 p.o., NB: sedative effect
    - Opioids (e.g., long-acting morphine 10-30 mg × 2, oxycodone 20 mg × 2, starting doses)
    - Cholestyramine binds bile acids; suggested dose is 4 g × 4 daily p.o.; rarely applicable in practice for a cancer patient.
- Skin care: the most common cause of pruritus in cancer patients is dryness of the skin. Skin care is a central form of treating itching regardless of its aetiology.
  - Dryness aggravates pruritus. The greasier the ointment, the longer the effect. Less greasy creams may feel more pleasant: apply more often. Soap should be avoided, and an emulsion cream should be applied to the skin before a bath/shower or oil should be added to the bath water. Dry the skin patting lightly.
  - Cooling menthol ointments can be used as skin cream.
  - Menthol-alcohol solutions are available at pharmacies.
  - Heat, anxiety, boredom, and lack of activity make pruritus worse.
  - Cotton gloves for the night, short nails to prevent scratching, light cotton clothing

## Palliative Radiotherapy

- Indications

- Bone pain that does not respond to pain medication (including opioids): at least partial palliation is achieved in about two thirds of patients and total relief on pain in about half. The onset of pain relief varies from a few days to four weeks, and palliation lasts on average 3 to 6 months; most patients benefit from repeated treatment.
- Prevention of fractures of the weight-bearing bones. If the risk of fracture is already present (more than half of the cortex is destroyed or there is a larger than 2-3 cm lytic metastasis in the diaphysis), consult a surgeon first.
- Treatment of spinal cord compression; NB: if the patient is developing paraparesis, tetraparesis, or the cauda equina syndrome (i.e., he/she has progressive neurological symptoms), radiotherapy (or surgical therapy) should be given as an emergency treatment. The neurological status of the patient at the time the therapy is started determines the outcome. Start the patient on steroids: see instructions below.
- Managing pressure symptoms (e.g., brain metastases, brain tumour, nerve compression)
- Haemorrhage: haemoptysis, haematuria
- Treatment of skin metastases
- Reducing obstructions (bronchus, vena cava superior, ureter)
- If pressure symptoms occur in the beginning of the treatment, or if they are to be expected during therapy, start the patient on a steroid (e.g., dexamethasone 3-10 mg × 1-3 p.o. or parenterally [some centres use doses up to 100 mg per day in medulla compression]) (Loblaw & Laperriere, 1998; DARE-980717, 2000) [A].
- The aim of palliative radiotherapy is to relieve symptoms quickly with as few adverse effects as possible.
- On the average, palliative radiotherapy is administered in 1-10 fraction; sometimes the best palliation is achieved with a full course of radiotherapy.

### Related Evidence

- There is not enough evidence to recommend certain models of palliative care (e.g., home care or hospital care). Home care may have some advantages (Salisbury, 1997; DARE-988312, 1999; Smeenk et al., 1998; DARE-988745, 2000) [C].
- Nutritional support for patients with cancer has not been shown to improve prognosis (Klein & Koretz, 1994; DARE-945046, 1999) [C].
- The provision of recordings or summaries of key consultations appears to benefit most adults with cancer (Scott et al., 2003) [B].

### Definitions:

#### Levels of Evidence

A: Strong research-based evidence. Multiple relevant, high-quality scientific studies with homogeneous results.

B: Moderate research-based evidence. At least one relevant, high-quality study or multiple adequate studies.

C: Limited research-based evidence. At least one adequate scientific study.

D: No research-based evidence. Expert panel evaluation of other information.

#### CLINICAL ALGORITHM(S)

None provided

### EVIDENCE SUPPORTING THE RECOMMENDATIONS

#### REFERENCES SUPPORTING THE RECOMMENDATIONS

[References open in a new window](#)

#### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

Concise summaries of scientific evidence attached to the individual guidelines are the unique feature of the Evidence-Based Medicine Guidelines. The evidence summaries allow the clinician to judge how well-founded the treatment recommendations are. The type of supporting evidence is identified and graded for select recommendations (see the "Major Recommendations" field).

### BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

#### POTENTIAL BENEFITS

This guideline can assist clinicians with the appropriate selection of palliative therapies to alleviate symptoms in cancer patients with benefits to the patient that outweigh the adverse effects.

#### POTENTIAL HARMS

Not stated

### IMPLEMENTATION OF THE GUIDELINE

#### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

### INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

#### IOM CARE NEED

End of Life Care

#### IOM DOMAIN

Effectiveness  
Patient-centeredness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

Finnish Medical Society Duodecim. Palliative treatment of cancer. In: EBM Guidelines. Evidence-Based Medicine [CD-ROM]. Helsinki, Finland: Duodecim Medical Publications Ltd.; 2003 May 30 [Various].

### ADAPTATION

Not applicable: The guideline was not adapted from another source.

### DATE RELEASED

2001 Dec 27 (revised 2003 May 30)

### GUIDELINE DEVELOPER(S)

Finnish Medical Society Duodecim - Professional Association

### SOURCE(S) OF FUNDING

Finnish Medical Society Duodecim

### GUIDELINE COMMITTEE

Editorial Team of EBM Guidelines

### COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Primary Author: Rita Janes

### FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

### GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Finnish Medical Society Duodecim. Palliative treatment of cancer. Helsinki, Finland: Duodecim Medical Publications Ltd.; 2001 Dec 27. Various p.

### GUIDELINE AVAILABILITY



This guideline is included in a CD-ROM titled "EBM Guidelines. Evidence-Based Medicine" available from Duodecim Medical Publications, Ltd, PO Box 713, 00101 Helsinki, Finland; e-mail: [info@ebm-guidelines.com](mailto:info@ebm-guidelines.com); Web site: [www.ebm-guidelines.com](http://www.ebm-guidelines.com).

#### AVAILABILITY OF COMPANION DOCUMENTS

- EBM guidelines. Evidence-based medicine. Helsinki, Finland: Duodecim Medical Publications, Ltd. 2002. [CD-ROM]
- EBM guidelines. Web site: [www.ebm-guidelines.com](http://www.ebm-guidelines.com).

Available from: Duodecim Medical Publications, Ltd, PO Box 713, 00101 Helsinki, Finland; e-mail: [info@ebm-guidelines.com](mailto:info@ebm-guidelines.com); Web site: [www.ebm-guidelines.com](http://www.ebm-guidelines.com).

#### PATIENT RESOURCES

None available

#### NGC STATUS

This summary was completed by ECRI on December 17, 2002. The information was verified by the guideline developer as of February 7, 2003. The summary was updated by ECRI on December 29, 2003.

#### COPYRIGHT STATEMENT

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